

## **Symposium Session on Global Atmospheric Change**

I am pleased to announce that a session on “Understanding and Managing Effects of Global Atmospheric Change” will be held at the Fifth Symposium of the U.S. EPA National Health and Environmental Effects Research Laboratory. The Symposium topic is “Indicators in Health and Ecological Risk Assessment.”

The session will take place on Wednesday, June 7 and Thursday, June 8 in Research Triangle Park, North Carolina. This session was organized by Dr. Walker of the Atlantic Ecology Division in ORD’s National Health and Environmental Effects Research Laboratory (NHEERL). Dr. Walker will chair the session.

The primary goal of this session is to discuss and advance integrative indicators that help characterize health and ecological risks associated with anthropogenic changes in the global atmosphere, and effectively communicate information on these risks to catalyze appropriate and timely societal responses. Examples of human-caused changes in the atmosphere include: increases in UV-b radiation (resulting from release of ozone-depleting compounds), global climate change (resulting from increases in greenhouse gas concentrations in the atmosphere), and changes in the flux of reactive nitrogen (particularly to watersheds and coastal receiving waters). Each of these anthropogenic changes has created coherent temporal patterns of variability in stressors to the environment and human health that can be documented at global and regional scales. Yet, due to varying ecosystem and human health sensitivities, there can be considerable spatial and temporal variability in adverse effects related to these changes. The session will examine biotic responses to these changes in both terrestrial (e.g., forest) and coastal marine (coral reefs and estuaries) ecosystems, environments where natural and anthropogenic components of change often operate on different spatial scales and frequencies. Historical and paleontological reconstructions will help provide context for consideration of current and future ecological and health risks. Examples will highlight effective use of indicators to document changes in atmospheric stressors, adverse health and ecological effects of these stressors, and measurement of societal responses.

The following is the agenda for the session:

### **Wednesday, June 7:**

10:30 Henry Walker, Ph.D., U.S. EPA, NHEERL

“Understanding and managing the health and environmental risks resulting from global atmospheric change: From recognition of potential problems to concrete mitigative factors.”

11:00 Paul Stolpman, U.S. EPA, Director, Office of Atmospheric Programs

“Managing global atmospheric change: a U.S. policy perspective”

11:30 Joel Scheraga, Ph.D., U.S. EPA, Director, Global Change Research Program  
“Assessing the potential consequences of global climate change and variability in the United States”

1:30 Michael Mann, Ph.D., University of Virginia  
“Global surface temperature changes during the past millennium”

2:00 Richard T. Barber, Ph.D., Duke University  
“Variability and change in the health of coral reefs”

2:30 Susan L. Anderson, Ph.D., University of California, Bodega Marine Laboratory  
“Indicators of UV exposure in coral and their relevance to global climate change and coral bleaching”

3:30 Grace Brush, Ph.D., Johns Hopkins University  
“Natural and anthropogenic changes in Chesapeake Bay during the last 1000 years”

4:00 Ken W. Stolte, Ph.D. & William W.H. Smith, Ph.D. (U.S. Forest Service),  
and John Coulston, Ph.D. & Mark Ambrose, Ph.D. (North Carolina State University)  
“Evaluating the health and sustainability of forests in the mid-Atlantic region: The forest health monitoring approach”

#### **Thursday, June 8:**

8:30 Henry Walker, Ph.D., U.S. EPA, NHEERL  
“Review of session material on ecological indicators”

9:00 Jonathan Patz, MD, MPH, Johns Hopkins School of Hygiene and Public Health  
“Human health implications of climate change and variability”

10:15 Round-table discussion and synthesis

Additional information about the Symposium can be found on the Internet at:  
<http://www.nheerl.epa.gov/symposium/index.html>

Registration for the conference is free. Registration information can be found at:  
<https://www.lcgnet.com/epasymposium/registration.asp>